IN THE CLAIMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD new claims 16-21 in accordance with the following:

1.   (Original) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse number counting means for counting a discharge pulse number applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse number memory means for storing a discharge pulse number which is used as a reference;

means for determining a ratio of a numerical value obtained by said discharge pulse number counting means to a numerical value stored in said reference discharge pulse number memory means; and

means for outputting, to said moving means, distance obtained by multiplying relative moving distance between said wire electrode and said workpiece to be determined by a preset feed speed and said predetermined time by said ratio as a moving command every said ˌpredetermined time.

2.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse current integrated value computing means for computing to integrate discharge pulse current applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other

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along a machining path on the basis of a moving command;

reference discharge pulse current integrated value memory means for storing a time integrated value for discharge pulse current which is used as a reference;

means for determining a ratio of a numerical value obtained by said discharge pulse current integrated value computing means to a numerical value stored in said reference discharge pulse current integrated value memory means; and

means for outputting, to said moving means, distance obtained by multiplying relative moving distance between said wire electrode and said workpiece to be determined by preset feed speed and said predetermined time by said ratio as a moving command every said predetermined time.

3.   (Original) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse number counting means for counting a discharge pulse number applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse number memory means for storing a discharge pulse number which is used as a reference;

comparison means for comparing a numerical value obtained by said discharge pulse number counting means every predetermined time with a numerical value stored in said reference discharge pulse number memory means; and

means for controlling discharge quiescent time such that a numerical value obtained by said discharge pulse number counting means every determined time coincides with a numerical value stored in said reference discharge pulse number memory means in accordance with the comparison result by said comparison means.

4.   (Original) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse number counting means for counting a discharge pulse number applied

every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse number memory means for storing a discharge pulse number which is used as a reference;

comparison means for comparing a numerical value obtained by said discharge pulse number counting means every predetermined time with a numerical value stored in said reference discharge pulse number memory means; and

a quiescent time controller for controlling discharge quiescent time so as to restrain surplus supply of energy in accordance with the comparison result by said comparison means.

5.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse current integrated value computing means for computing to integrate discharge pulse current applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse current integrated value memory means for storing a time integrated value for discharge pulse current which is used as a reference;

means for comparing a numerical value obtained by said discharge pulse current integrated value computing means every predetermined time with a numerical value stored in said reference discharge pulse current integrated value memory means; and

a quiescent time controller for controlling discharge quiescent time so as to restrain surplus supply of energy in accordance with said comparison result.

6.   (Original) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse number counting means for counting a discharge pulse number applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other

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along a machining path on the basis of a moving command;

reference discharge pulse number memory means for storing a discharge pulse number which is used as a reference;

means for determining a ratio of a numerical value obtained by said discharge pulse number counting means every predetermined time to a numerical value stored in said reference discharge pulse number memory means; and

a liquid amount controller adapted to increase or decrease an amount of coolant in accordance with said ratio.

7.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are being caused to relatively move to each other, comprising:

discharge pulse current integrated value computing means for computing to integrate discharge pulse current applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse current integrated value memory means for storing a time integrated value for discharge pulse current which is used as a reference;

means for determining a ratio of a numerical value obtained by said discharge pulse current integrated value computing means every predetermined time to a numerical value stored in said reference discharge pulse current integrated value memory means; and

a liquid amount controller adapted to increase or decrease an amount of coolant in accordance with said ratio.

8.   (Original) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse number counting means for counting a discharge pulse number applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

reference discharge pulse number memory means for storing a discharge pulse number

which is used as a reference; and

comparison means for comparing a numerical value obtained by said discharge pulse number counting means every predetermined time with a numerical value stored in said reference discharge pulse number memory means, wherein

on the basis of the comparison result by said comparison means, discharge quiescent time is controlled and an amount of movement every said predetermined time in a moving command to be outputted to said moving means is also controlled.

9.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

discharge pulse current integrated value computing means for computing to integrate discharge pulse current applied every predetermined time;

moving means for relatively moving said wire electrode and said workpiece along a machining path on the basis of a moving command;

reference discharge pulse current integrated value memory means for storing a time integrated value for discharge pulse current which is used as a reference; and

comparison means for comparing a numerical value obtained by said discharge pulse current integrated value computing means every predetermined time with a numerical value stored in said reference discharge pulse current integrated value memory means; wherein

on the basis of the comparison result by said comparison means, discharge quiescent time is controlled and an amount of movement every said predetermined time in a moving command to be outputted to said moving means is controlled.

10.   (Previously Presented) The controller for a wire electric discharge machine according to claim 8, wherein on the basis of the comparison result by said comparison means, the amount of coolant is controlled.

11.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

means for controlling relative movement distance between said wire electrode and said

workpiece on the basis of an amount of machining of said workpiece through discharge pulse.

12.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a discharge quiescent time controller for controlling discharge quiescent time on the basis of an amount of machining of said workpiece through discharge pulse.

13.   (Withdrawn) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a liquid amount controller for controlling an amount of coolant on the basis of an amount of machining of said workpiece through discharge pulse.

14.   (Withdrawn) The controller for a wire electric discharge machine according to claim 11, wherein said control on the basis of an amount of machining of said workpiece through discharge pulse is performed based on a counted value obtained by counting the discharge pulse number applied every predetermined time, and a predetermined value determined in advance.

15.   (Withdrawn) The controller for a wire electric discharge machine according to claim 11, wherein said control on the basis an amount of machining of said workpiece through discharge pulse is performed based on a value obtained by computing to integrate the discharge pulse current applied every predetermined time, and a predetermined value determined in advance.

16.   (New) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a discharge pulse number counter to count a discharge pulse number applied every predetermined time;

a moving part to relatively move said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

a determining part to determine a ratio of a numerical value obtained by said discharge pulse number counter to a reference numerical value; and

an output part to output, to said moving part, distance obtained by multiplying relative moving distance between said wire electrode and said workpiece to be determined by a preset feed speed and said predetermined time by said ratio as a moving command every said predetermined time.

17.   (New) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a comparing part to compare a numerical value obtained by a discharge pulse number counter every predetermined time with a numerical value stored in a reference discharge pulse number memory; and

a controller controlling discharge quiescent time such that a numerical value obtained by said discharge pulse number counter every determined time coincides with a numerical value stored in said reference discharge pulse number memory in accordance with a comparison result by said comparing part.

18.   (New) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a discharge pulse number counter to count a discharge pulse number applied every predetermined time;

a moving part to relatively move said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

a reference discharge pulse number memory for storing a discharge pulse number which is used as a reference;

a comparing part to compare a numerical value obtained by said discharge pulse number counter every predetermined time with a numerical value stored in said reference pulse number memory; and

a quiescent time controller to control discharge quiescent time so as to restrain surplus supply of energy in accordance with the comparison result by said comparing part.

19.   (New) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a determining part to determine a ratio of a numerical value obtained by a discharge pulse number counter every predetermined time to a reference numerical value; and

a liquid amount controller adapted to increase or decrease an amount of coolant in accordance with said ratio.

20.   (New) A controller for a wire electric discharge machine performing electric discharge machining by applying electric discharge pulse current between a wire electrode and a workpiece while said wire electrode and said workpiece are caused to relatively move to each other, comprising:

a discharge pulse number counter to count a discharge pulse number applied every predetermined time;

a moving part to relatively move said wire electrode and said workpiece to each other along a machining path on the basis of a moving command;

a reference discharge pulse number memory to store a discharge pulse number which is used as a reference; and

a comparing part to compare a numerical value obtained by said discharge pulse number counter every predetermined time with a numerical value stored in said reference discharge pulse number memory, wherein

on the basis of the comparison result by said comparing part, discharge quiescent time is controlled and an amount of movement every said predetermined time in a moving command to be outputted to said moving part is also controlled.

21.   (New) The controller for a wire electric discharge machine according to claim 20, wherein on the basis of the comparison result by said comparing part, the amount of coolant is controlled.